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DEPARTMENT OF AUDITOR-CONTROLLER**

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May 14, 2012

TO: Supervisor Zev Yaroslavsky, Chairman  
Supervisor Gloria Molina  
Supervisor Mark Ridley-Thomas  
Supervisor Don Knabe  
Supervisor Michael D. Antonovich

FROM: Wendy L. Watanabe  
Auditor-Controller

SUBJECT: **CONSULTANT'S REVIEW OF ASSESSOR'S FISCAL YEAR 2012-13  
ASSESED VALUE ROLL FORECAST (Board Agenda Item 74 – May  
15, 2012)**

At the April 10, 2012 meeting, your Board instructed the Auditor-Controller (A-C) to retain an outside consultant to review the County Assessor's Fiscal Year (FY) 2012-13 assessed value roll forecast. The request was based on a reduction in the Assessor's forecast in the roll value from a 1.77% increase in December 2011, to an increase of only 0.49% in the Assessor's April 2012 forecast. The change represents a drop in the projected increase in the roll from \$18.6 billion to \$5.1 billion, a net decrease of \$13.5 billion.

Based on your Board's request, we contracted with the Rosenow Spevacek Group, Inc. (RSG) to review the Assessor's forecast and methodology. RSG has provided similar assessed value roll services to a number of local agencies, including Orange County.

RSG has completed their review of the Assessor's methodology for forecasting changes in the assessed value roll. A copy of their report is attached. In addition, at our request, RSG independently analyzed the Assessor's upcoming May 15<sup>th</sup> assessed value roll forecast. Based on their review, RSG has determined that the Assessor's May 15<sup>th</sup> forecast of a 1.14% increase is reasonable. RSG also noted areas where the Assessor may be able to improve the accuracy of their forecasts. The following is a summary of RSG's review.

### **Background**

The Assessor's primary function is to set values on real estate and personal property in the County that may be subject to value-based property taxes. Government Code Section 27421 requires the Assessor to provide an estimate of the assessed valuation of property in the County to any requesting jurisdiction by May 15<sup>th</sup> of each year.

In addition to the May 15<sup>th</sup> forecast, the County Assessor has historically issued preliminary forecasts in December and April. (In their review, RSG noted that, because of the difficulty in making the forecasts, assessors in most other counties do not provide any forecasts except the required May 15<sup>th</sup> forecast.) These forecasts, while not part of the Assessor's core business, have become an important part of the CEO's preliminary budget revenue estimate.

It should be noted that the Assessor's Office has experienced a number of retirements in key management roles in past few years, which has resulted in significant turnover in the staff who prepare the roll forecasts.

### **Results of Review**

RSG reviewed the Assessor's methodology for the December and April forecasts. They noted the following issues with the forecasts:

#### **December 2011 - Forecasted 1.77% Increase**

- The forecast provided a specific estimate, and did not indicate that the estimate was very susceptible to decreases in property values, or provide a "sensitivity analysis", to show what would happen to the forecast if prices fell.
- The forecast only included actual sales data from January to September 2011. This made the forecast higher than it would have been if it had included the declines in sales prices that occurred in October through December.
- The forecast used changes in property values by geographic region and property type in a manner that may have diminished the accuracy of the overall forecast. This methodology also requires staff to use considerable judgment in the forecast.

#### **April 2012 - Forecasted .49% increase**

- The April forecast also used changes in property values by geographic region and property type in a manner that may have diminished the accuracy of the overall forecast.



- Math errors overstated some price reductions.
- Value reductions for some parcels had to be developed based on computer models, which may be different from the actual appraisals.

It should be noted that, because of the timing of the forecasts and the information available when the forecasts are prepared, the December forecast has to be based on a number of significant projections/estimates. However, by the time of the April projection, some of the earlier projections/estimates can be replaced by more actual property valuations, and more current data. Similarly, when the May 15<sup>th</sup> forecast is prepared, the number of projections/estimates used in the forecast is even lower, improving the accuracy of the May forecast. RSG noted that, historically, the December forecast has been the least accurate, with the April and May forecasts being closer to the actual assessed roll value.

Based on their review, RSG has identified some potential changes that may enhance the Assessor's forecasts. For example:

- Ensuring that the estimates provide a range of values, based a sensitivity analysis, instead of a precise forecast;
- Using the most current data available;
- Using a more refined approach using smaller areas and specific types of properties, and more current data sources;
- Obtaining input from economists and other experts, who may be able to assist in forecasting values and trends.

### **Recommendation**

Because of the technical nature of these changes, we recommend that the Assessor and CEO should work together in the future, along with appropriate consultants and/or economists, to evaluate the proposed changes to determine how to enhance the forecast methodology.

As noted earlier, the only forecast that the Assessor is required to prepare is the May 15<sup>th</sup> forecast. At our request, RSG did an independent review of the Assessor's May 15<sup>th</sup> forecast as it was being prepared. Based on their review, RSG believes the Assessor's May 15<sup>th</sup> forecast of a 1.14% increase in the assessed value roll is reasonable.

Please call me if you have any questions, or your staff may contact Jim Schneiderman at (213) 974-9303.

WLW: JLS

Board of Supervisors

May 14, 2012

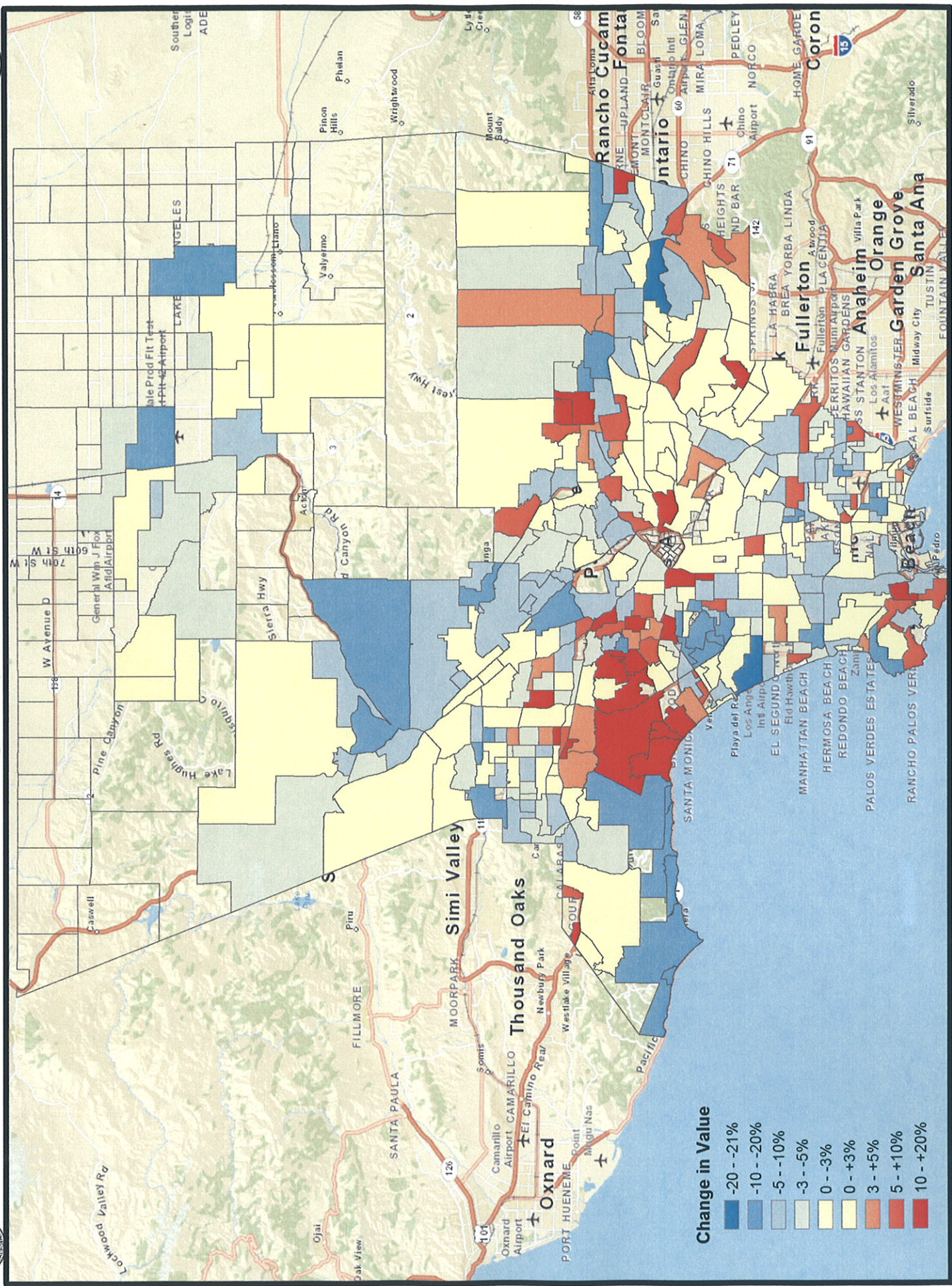
Page 4

Attachment

c: William T Fujioka, Chief Executive Officer  
John R. Noguez, Assessor  
Sachi A. Hamai, Executive Officer, Board of Supervisors  
Public Information Office  
Audit Committee



# Value Change by Cluster Sep 2011

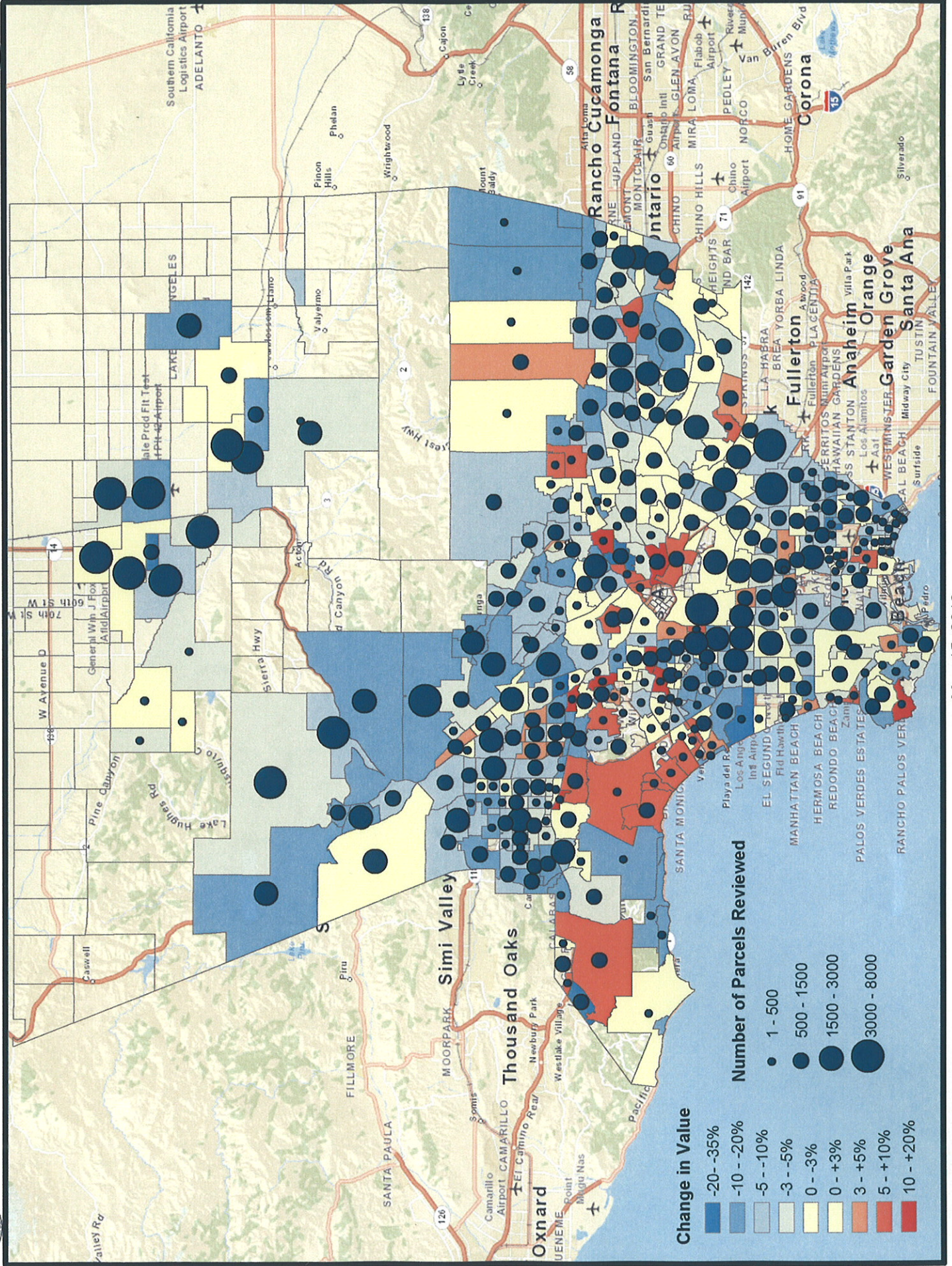








# Value Change by Cluster Jan 2012





**RSG****INTELLIGENT COMMUNITY DEVELOPMENT**

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Via Electronic Mail

**To:** Wendy L. Watanabe, Auditor-Controller  
COUNTY OF LOS ANGELES AUDITOR-CONTROLLER

**From:** Jim Simon, Principal   
Hitta Mosesman, Senior Associate   
Alexa Smittle, Associate  
ROSENOW SPEVACEK GROUP INC.

**Date:** May 14, 2012

**SUBJECT: REVIEW OF LOS ANGELES COUNTY ASSESSOR FORECAST AND PROCEDURES**

At the direction of the Los Angeles County ("County") Board of Supervisors on April 9, 2012, the County Auditor-Controller ("Auditor-Controller") retained RSG to evaluate the process, methodology, and results of the Los Angeles County Assessor 2012-13 assessment roll forecasts prepared on December 15, 2011 and April 4, 2012. The purpose of the review was to obtain an independent evaluation of the forecasts and the pertinent actions by the Los Angeles County Assessor's office.

#### **EXECUTIVE SUMMARY**

Section 27421 of the California Government Code requires county assessors to prepare a countywide estimate of the forthcoming assessment roll by May 15 upon the requested of a governing body of a taxing agency. It has been the annual practice of the Los Angeles County Assessor's Office to prepare this estimate in May, as well as preliminary forecasts in December and March/April to provide important information for budgetary purposes.

The December forecast falls before the January 1 lien date prescribed by law for the assessment process, and therefore only partial data is available to prepare the forecast. Information provided by the Los Angeles County Assessor's Office indicates that the Los Angeles County Assessor generally followed the same methodology to prepare the forecasts for this fiscal year that has been used since 2007. With regard to a "best practices" comparison with other counties, interviews with four other assessor's offices in southern California indicate that other assessors do not routinely prepare forecasts other than the legally mandated May 15<sup>th</sup> forecast mentioned above.

Based on RSG's professional experience, we have identified several issues related to the methodology utilized by the Los Angeles County Assessor's Office to prepare the "Current Year Decline in Value" calculation for both the December 2011 Preliminary Estimate and April 2012 Revision forecasts. In our opinion, improvements to the methodology utilized by the Assessor, as outlined below, would result in

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more accurate forecasts. Our main findings are related to the "Current Year Decline in Value" calculation and are summarized below:

#### DECEMBER 15, 2011 PRELIMINARY FORECAST - CONCERNS

1. The forecast, which is subject to market fluctuations, did not account for the fact that an unusually high number of properties in the County (one of every five parcels) were at risk for value reductions (a higher number than those in 2009).
  - a. A significant number of parcels in the County have assessed values very close to market value.
  - b. Because assessed value is so close to market value for these properties, they are subject to declines in assessment value with smaller fluctuations in area sales prices.
  - c. Declines occurred in home sales prices in the last quarter of 2011 and first quarter of 2012 that were not (and could not given the database utilized) accounted for in the December Forecast that ultimately would result in significant declines in assessed value.
2. Data on actual sales for October or November 2011 showing signs of a softening market in many parts of the County were not incorporated in the forecast.
  - a. The December forecast utilized only sales data recorded between January and September 2011.
  - b. It is recognized that the market data should be as close to the January 1 lien date as possible to ensure a more accurate the forecast.
  - c. The Assessor's Office has indicated that in the future they may make this change in methodology and use more current data for the December 2012 forecast.
3. The December Decline-in-Value component includes Countywide adjustments that may diminish the accuracy more detailed projections of values.
  - a. The forecast begins with a sales price ratio analysis for the period of January through September by cluster, or specific geographical location (there are approximately 350 residential clusters in the County). An average value change (increase, decrease, or no change), by five land use groupings (single family detached, condominium, multifamily, commercial/industrial, vacant, and other) for the County as a whole, rather than by specific geographical area is calculated.
  - b. These detailed sales analyses through the month of September are then totaled and adjusted by the Countywide (not cluster-level) changes in value for a full year (September to September) in order to update the projections in the absence of sales data after September.
  - c. Because this last adjustment by the Assessor's office staff is performed on a Countywide basis, the more acute market fluctuations occurring in each cluster or market are muted and potentially missed in the projections. For example, a single family home in Lancaster is assigned the same adjustment to its estimated decline in value as a single family home in Santa Monica. Obviously, these two cities/locations represent very different real estate markets. RSG believes this is a key factor in providing more accurate forecasts of future assessed value.



#### RECOMMENDED IMPROVEMENTS TO DECEMBER FORECAST METHODOLOGY

1. Impacts of continued reductions and/or increases in value need to be analyzed in a fluctuating real estate market. As the market conditions changed, so too should the data rely upon and the methodology utilized.
2. Sales data through October and the first half of November should be utilized.
3. Average or median value changes per building square foot (reductions, increases and no change in value) should be calculated and utilized by specific geographical area through as much of the forecast as possible to maintain the accuracy of the forecast.
4. Examining additional economic indicators and data, as well as obtaining additional financial and economic assistance and expertise could be employed.

#### APRIL 4, 2012 REVISION FORECAST

1. RSG found flaws in calculation of nearly 8.7 of the \$13.5 billion "Current Year Reduction in Value"
  - a. Involves a pool of parcels for which valuation changes must be made without actual appraisals or the mass appraisal computer model. This component of the analysis relies heavily on staff analysis of appraiser decisions for other parcels in the County ("appraiser judgment").
  - b. Staff reviews value changes based appraiser judgment (or the estimate of how appraisers value property differently than a mass-appraisal computer model).
  - c. Adjustments were made to values in "b" above but involved a mathematical flaw that resulted in an \$110,000 decline in value per unit Countywide for approximately 34,000 parcels included in the "Current Year Decline in Value" portion of the forecast. This figure was not only derived by incorrect math (which if calculated properly would have increased the adjustment per unit to \$140,000 for a single year), did not reconcile with similar adjustments in value which should be closer to \$75,000 Countywide.
  - d. In our opinion, it would be highly unlikely that reductions of more than \$75,000 per parcel would be likely, and that in this case it was not necessary to make further adjustments to the mass-appraisal computer model results, thereby exaggerating the decline in value for these residential parcels by approximately \$35,000 per parcel, resulting in overstating the April forecast decline in value estimate by 8.7 percent, or \$1.17 billion.
2. Inconsistencies in calculating value changes for different types of parcels
  - a. Depending on whether the property experienced a decrease in value in 2011-12, the Assessor's forecast employs adjustments based on appraiser judgment in the prior year or current year for the current year forecast. In our opinion, the appraiser judgment in the current year would be a more reliable basis for current year adjustments to computer-aided appraisals.
3. Average increases and decreases in value were applied County-wide rather than on a more geographical-specific manner that would result in greater accuracy (same comment as #3 under December forecast) for estimation purposes on properties not yet appraised.

#### RECOMMENDED IMPROVEMENTS TO THE APRIL FORECAST METHODOLOGY

1. All estimated value changes (all properties without actual values) could be estimated by cluster (or by regional area, if insufficient data is available for selected clusters) based upon a median



average per square foot basis. We believe this would result in greater accuracy (based on a test case detailed later in this memorandum).

2. Value change estimates based on "appraiser judgment" could be refined for better accuracy.
3. Forecast adjustments for appraiser judgment should use the same year's data, regardless if the property decreased in value in the prior year.
4. Examining additional economic indicators and data, as well as obtaining additional financial and economic assistance and expertise could be employed.

Based on these findings and analysis, RSG has concluded that the 2012-13 assessment roll estimate should reflect an increase of 1.14%, or \$12 billion over 2011-12 assessed values based on the following components compiled during our analysis:

**2012-13 Los Angeles County Assessment Roll Forecast**  
May 14, 2012 / RSG Inc.

Component	Change in Billions	Pct of Roll Chg
CPI (2.00%)	\$15.953	1.44%
Transfers	\$11.281	1.02%
Construction	\$2.905	0.26%
Personal Property & Fixtures	-\$1.747	-0.16%
*X-Reference & Other	-\$1.094	-0.10%
**Current Year Decline-in-Value	-\$8.713	-0.79%
***AABs/Decline-in-Value (Prior Years)	<u>-\$4.232</u>	<u>-0.38%</u>
<b>TOTAL LOCAL ROLL</b>	<b>\$14.353</b>	<b>1.30%</b>
Exemptions	<u>-\$2.468</u>	
<b>TOTAL LOCAL ROLL (After Exemptions)</b>	<b>\$11.885</b>	<b>1.12%</b>
Homeowners' Exemptions	<u>\$0.117</u>	
<b>NET LOCAL ROLL</b>	<b>\$12.002</b>	<b>1.14%</b>

\*X-Reference and Other is comprised of properties of various use, such as mining rights, water rights, water distribution, possessory interest, mobile homes, farms, recreational, and institutional properties.

\*\*Current Year Decline-in-Value is primarily based on actual results and an estimate provided by RSG for the remaining unworked single family residential properties.

\*\*\*AABs/Decline-in-Value is primarily based on the results of Assessment Appeals Board cases.



## **PURPOSE**

On December 15, 2011, the Assessor presented the first forecast for the 2012-13 fiscal year assessment roll, which projected an increase of \$18.7 billion in assessments over the 2011-12 fiscal year assessment roll. On April 4, 2012, a revised forecast was presented, showing growth of only \$5.1 billion, a reduction of \$13.6 billion - nearly 73 percent below of the original growth projection.

Due to the significant variance between the two forecasts, RSG was retained to perform a procedural investigation to determine:

- a. Why the December forecast differed so greatly from the April forecast; and
- b. If a better methodology could be employed to perform forecasts in the future.

RSG's analysis included information obtained from the following sources:

- Multiple meetings and interviews with the Los Angeles County Auditor-Controller's Office and the Los Angeles County Assessor's office personnel and management directly involved in the forecast process,
- Analysis of databases and worksheets employed by the Los Angeles County Assessor's forecast team,
- Interviews of assessor's office personnel elsewhere in several other counties in California, and
- Best practices as financial consultants retained by taxing agencies, special districts and counties to perform assessed value forecasts for over 32 years.

## **BACKGROUND**

### **ROLE OF THE LOS ANGELES COUNTY ASSESSOR**

According to the California State Board of Equalization, the primary role of a county assessor is to annually determine the property taxable value for each property so that the property owner is assured of paying the correct amount of property tax for the support of local government. The assessment roll is finalized in July each year. However, Section 27421 of the California Government Code requires the assessor to prepare a countywide estimate of the forthcoming assessment roll upon the request of a governing body of a taxing agency.

The Los Angeles County Assessor establishes the taxable value of property within the County, and complete adjustments to the assessed value roll ("roll") by the start of each fiscal year, July 1st. Assessments are performed on a parcel-by-parcel basis, and State law requires that taxes assessed on a property reflect the lower of two values: market value or that established by Article 13A of the California Constitution, commonly referred to as "Prop 13". The first assessment of a property, which establishes its Prop 13 base value, occurs when a property is transferred or some other assessable event has occurred such as new construction on a parcel or the addition to a structure such as a room addition. After the establishment of the base assessment (or modification), the property is assessed as part of a county-wide annual cycle to establish the annual assessment roll utilizing a January 1<sup>st</sup> lien date.



As the Los Angeles County Assessor is required to use a January 1<sup>st</sup> lien date, and the roll must be completed by June 30<sup>th</sup>, the timeframe for assessing over 2.4 million parcels within the County is largely compressed into a six-month period. Appraisals are conducted by staff appraisers, who are overseen by supervisor appraisers. The County currently invests a full year in training new assessors in the practices and procedures of the job. The State Board of Equalization is tasked with the review of county assessor's practices. The State Board rotates their reviews statewide, ultimately reviewing every county assessor's office about every four years for quality control.

## ASSESSMENT PROCESS

Assessment of commercial properties, including income-producing housing such as an apartment complex, is always done on a case-by-case basis. Assessors utilize a variety of different pro-forma models to value the property.

Single family unit appraisals rely largely on sales data to establish the market value of a property. In the case of custom homes or older neighborhoods that may have a great deal of variance between neighboring houses, parcels are also assessed on a case-by-case basis. Single family homes and condominiums, particularly those built as part of a tract of homes or single development, may not necessarily be valued individually as they are so similar to one another. In recent years, many assessors began to work with computer modeling programs called mass appraisal systems to assess tract-style homes in a more efficient manner.

In years of market growth, adjustments in value are largely determined by the parcel's base value with Prop 13 inflationary rate increases applied by year. In years of decline as the County is currently experiencing, properties may warrant a reduction in value to ensure that its roll value is not greater than market value. In future years when the real estate market improves, those parcels that were reduced may then be restored to their Prop 13 adjusted value.

## ASSESSMENT TECHNIQUES

Assessment is based on both macro-level data such as location, lot size, square footage, age, quality, and class of structure; as well as micro-level data like view, amenities, condition of amenities, etc. The Los Angeles County Assessor breaks the County down into three different levels of geographic boundaries:

- Four (4) location-designated districts (i.e. North, East, South, and West);
- Approximately fifteen (15) regions; and
- Approximately 350 residential clusters.

These areas are designated by the Los Angeles County Assessor to aid in the assessment process. At the more detailed level, cluster boundaries are created by the Los Angeles County Assessor staff and reviewed periodically to establish areas that have some level of homogenous characteristics that may be used as reference points for market values. Staff assessors are able to complete parcel appraisals by maintaining detailed records of properties, tracking sales values by cluster, understanding the nuances of

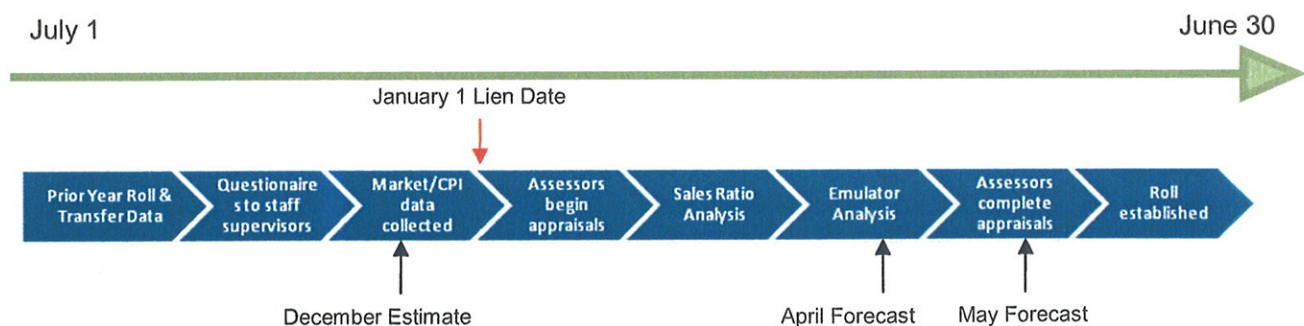
their assigned clusters, and recognizing the factors that influence market values. The majority of the appraisal process is human-driven and relies upon the abilities of staff to make accurate judgment calls.

RSG consulted with four other county assessor offices to determine if the forecast methodology, particularly as it relates to reductions in value, was performed in a reasonable manner by the Los Angeles County Assessor. For various reasons, the assessors declined to go on record critiquing another assessor's process, so RSG cannot expand in great detail about their input. Still, we learned some valuable insight from these interviews. First, while the overall appraisal processes are very similar to the County's approach, forecasts are not commonly prepared in other counties.

#### ANNUAL FORECASTS OF THE LOS ANGELES COUNTY ASSESSMENT ROLL

For over 20 years, the Los Angeles County Assessor has historically prepared three forecasts of the upcoming roll value, the first in December, a second in March or April, and another in May. As mentioned previously, only the May forecast is legally required, and only then if requested by a jurisdiction. Regardless of what the results may be of the forecast, we feel it is important to underscore that these forecasts are relatively rare in any county, and it is likely that there are good reasons why most assessors do not provide a forecast – namely that it requires a different type of analysis than the assessment process and the question is whether such an analysis can be funded, managed and produced without disruption of the core and essential services performed by the assessor.

The establishment of the roll is cyclical, occurring each year largely between the January 1<sup>st</sup> lien date and June 30<sup>th</sup>. The final equalized roll is in fact not available until August 20<sup>th</sup>. The interaction between the Los Angeles County Assessor's work over the course of the year and the timing of the forecasts creates a challenge.



As shown on the chart above, the December "forecast" is preliminary and occurs very early in the assessment cycle – so much so that RSG has chosen to distinguish it as an estimate for the purposes of this memo. A limited amount of data is available: the prior year roll, property transfer data, and some qualitative information from staff and market indicators that provide feedback on the direction of the market. A median home value analysis does take place prior to the December estimate to assess the potential impacts of declines in market value, but the current methodology utilizes only data through September. Metaphorically speaking, these preliminary and revision estimates are akin to a balance sheet that was pulled before the end of a reporting period. This is not to suggest that the early forecasts are not accurate by nature, but they are likely to be incomplete and eventually these holes may be



exposed as the real estate market does not follow predictable patterns that always fit in the assessment cycle.

The March/April forecast and the upcoming legally mandated May forecast occur much later in the assessment cycle. By that time, not only has the January 1<sup>st</sup> lien date passed, but the staff assessors are establishing values, therefore some actual data is available to use as a base for the forecast.

#### PURPOSE OF THE FORECASTS

Based upon conversations with Los Angeles County Assessor's Office staff, the forecasts appear to be as much of a measure of the reassessment process work flow as they are about getting the most accurate estimate of value. The forecasts in December (preliminary), March/April (revision) and May represents work completed in the reassessment process to date and estimates of what may happen between that date and the close of the roll. Typically, that accuracy increases between December and May as appraisals are finalized and the amount of estimating work decreases as the process nears the close of the roll. But given the critical importance of the forecast for internal budget purposes, the forecast needs to be the most accurate estimate of what the reassessment process will result in each year.

## SUMMARY OF THE DECEMBER 2011 PRELIMINARY AND APRIL 2012 REVISION FORECASTS

Represented below are the forecasted changes to the current year (2011-12) roll that were anticipated for 2012-13 as presented in December 2011 and April 2012.

<b>2012-13 Forecasted Changes in Roll Values (Values in Billions)</b>			
	<b>December</b>	<b>April</b>	<b>% Attributable to Value Change</b>
CPI (2.00%)	\$16.307	\$15.767	-4%
Transfers	\$9.702	\$10.330	5%
Construction	\$3.415	\$2.720	-5%
Personal Property and Fixtures	-\$1.455	-\$1.455	0%
X-Reference and Other	-\$1.774	-\$2.072	-2%
Current Year Decline in Value	-\$2.603	-\$13.477	-80%
AABs/Decline-in-Value (Prior Years)	-\$3.930	-\$4.247	-2%
<b>TOTAL LOCAL ROLL</b>	<b>\$19.662</b>	<b>\$7.566</b>	<b>N/A</b>
Exemptions	-\$1.011	-\$2.468	-11%
<b>TOTAL LOCAL ROLL (After Exemptions)'</b>	<b>\$18.651</b>	<b>\$5.098</b>	<b>-100%</b>
Homeowners' Exemptions	\$0.032	\$0.037	0%
<b>NET LOCAL ROLL</b>	<b>\$18.683</b>	<b>\$5.135</b>	<b>-100%</b>
<b>Difference in Net Local Roll (December to April)</b>		<b>-73%</b>	

Though most categories experienced some fluctuation in value, the majority of the discrepancy between December and April can be attributed to the current year decline-in-value (Prop 8) category, distantly followed by the change in exemptions.

## MAJOR DIFFERENCES BETWEEN THE DECEMBER AND APRIL FORECASTS

### Current Year Decline in Value (also referred to as Prop 8 Reductions)

The most significant difference between the December and April forecasts this year was the amount of assessed value projected to be lost due to the current year decline in value adjustments (also referred to as Proposition 8 reductions). The increase in these losses stems directly from the inclusion of fourth quarter 2011 single family home prices that saw reductions in many markets by approximately 5 percent over the prior year, both according to the Los Angeles County Assessor and third party sources such as DataQuick and Standard & Poors/Case-Shiller.



In a rising real estate market, changes in assessed value are largely governed by Prop 13 where the average property owner could expect the maximum inflationary value of two percent over the previous year. At the same time, as a property may not be assessed above market value, most properties purchased when the housing market rose steeply in the mid-2000's have experienced a decline in assessed value. Declines in value initiated by the Los Angeles County Assessor are commonly referred to by their previously label "Prop 8 reductions", and have occurred en mass over the last several years as the market value of homes plummeted, often to levels more than ten years old.

The number of properties assessed at or near market value is an important consideration when looking at the roll, as the greater the number of parcels with assessed values at or near market values, the greater the volatility, particularly downward volatility of assessed values. The Los Angeles County Assessor tracks the parcels that receive a reduction in value each year, and uses this in preparing the new roll as well as computing estimates of the new roll. However, it may not always be clear to the receivers of the forecasts that over the past several years, the number of parcels assessed at or near market value has increased to nearly 500,000, or approximately 1 out of every 5 parcels on the roll. In 2009, despite significant drops in market values, the majority of these reductions closed the cushion between market values and assessed values. Minor fluctuations in the market will, until significant and sustainable recovery in residential home prices, cause assessed values to be volatile.

For the most part, the December forecast did not consider the ongoing decline in real estate home prices experienced during the final quarter of 2011, as it customarily waits for the Los Angeles County Assessors office to conduct a thorough review and analysis of transfer data. As it turned out, exclusion of this data not only excluded the impact of further reductions on the 375,000 parcels with prior year Prop 8 reductions, but also did not capture an additional 125,000 parcels that were now subject to a potential decline in value because their assessed values were also near or below market value.

This growing pool of properties that are subject to reductions is a significant consideration in forecasts and should be dealt with through better communication of the forecast findings and implications, as well as more immediate inclusion of market data, particularly in the December forecast. We note that many outside third parties report on the same data from the Recorder's office with much more immediacy, so for forecasting purposes, it may be prudent to employ similar methodologies to not miss changes in market values in the final quarter and repeat the variances between the December and April forecasts.

#### Exemptions

Property tax exemptions are granted to certain property owners, which reduces the amount of revenue collected on a parcel. Exemptions are typically granted to churches, religious or charitable organizations, non-profit colleges, certain hospitals, etc. In order to receive this type of exemption, a request form must be submitted to the Los Angeles County Assessor each year. Forms are due by February 15<sup>th</sup>, but it takes a couple months before all forms are processed. As before, the timing of the exemption process does not align with the timing of the forecasts, and the data available in April is far more complete than in December. This memo does not focus on this category; however, RSG did notice a trend over recent years where this value regularly doubled between the December and later estimates. Perhaps better processes could be invoked to help the Los Angeles County Assessor identify potential exemptions in the future.

## TECHNICAL ANALYSIS

RSG has summarized the key findings of our technical analysis of the December and April forecasts below, which largely entail refinements needed to the process and methodology employed to make the risks of such divergent forecasts less likely in the future.

### DECEMBER (PRELIMINARY) FORECAST

#### 1. The December Forecast is a Rough Estimate Due to Limited Data Availability

The December estimate is inherently inferior to the later forecasts because it does not incorporate data up until the legally mandated January 1 lien date. In contrast, the April forecast tends to be more accurate because the January 1 lien date has passed, sales data for the entire year has been collected and analyzed, a portion of the assessments are already established, and the Los Angeles County Assessor's office have identified and begun reviewing parcels that may be eligible for a "decline in value" reduction. Although labeled "preliminary", perhaps the December forecast would be more accurately characterized as "partial" because it lacks much data needed to establish the total roll, such as exemption filings, sales data, and identified parcels for evaluation for reduction.

The December estimate has always varied from later forecasts. For example, in the last two years, the May forecast was more accurate to the actual closed July roll than the December preliminary forecast. Given the Los Angeles County Assessor's office methodology for creating the forecast, this would always be true because over time the number of parcels being enrolled increases and the number of parcels where estimates are necessary decline.

#### *Historical Forecast Comparison (Values in Millions)*

	Actual	December	% Variance from Actual	May	% Variance from Actual	% Change Dec - April
2010-11	\$ 1,042,340	\$ 1,033,467	0.86%	\$ 1,037,815	0.44%	0.42%
2011-12	\$ 1,056,493	\$ 1,050,308	0.59%	\$ 1,052,661	0.36%	0.22%
2012-13		\$ 1,075,176		\$ 1,061,628 <sup>1</sup>		-1.26%

<sup>1</sup> April forecast data utilized here, the May forecast is not yet prepared.

#### 2. Additional Data and More Detailed Analysis = More Reliable Forecast

Data sources are scarcer for the preliminary forecast, but the following issues have been identified:

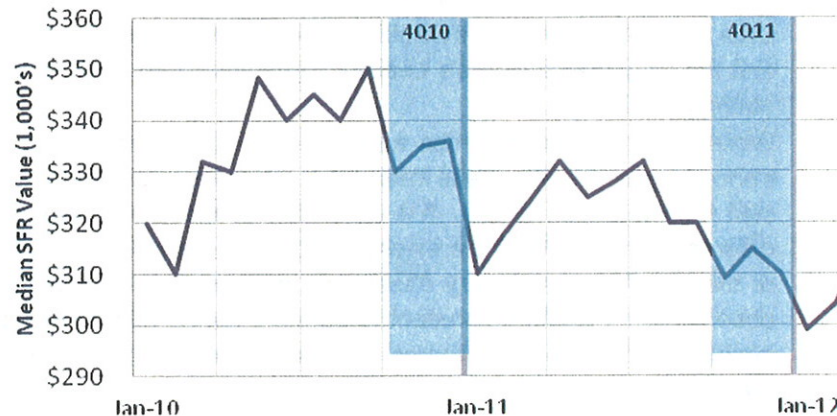
- Forecast Should be More Precise in Measuring New Values on Parcels that Were Previously Reduced and At Greatest Risk of Further Reductions
  - The preparation of the December estimate initially involves a calculation of value change based upon median sales prices by cluster (called the "Restoration Forecast", as referred



to in Step 3 on page 1 of Appendix A to this memorandum). An average increase and decrease in value by parcel and land use is calculated to be applied to all parcels that were in the prior year subject to a decline in value (called "Restoration parcels"), regardless of geographical location in the County. Approximately 375,000 parcels fall into this category.

- However, these more specific projections become less cluster- and district-specific as staff modifies the average value changes based on a cursory review of Countywide averages in changes in median sales prices from DataQuick and limited regional change in value information (Step 4 on page 1 of Appendix A to this memorandum). This modified number appears to be determined on the judgment of staff and does not account for the fact that not all markets in the County are identical.
- Given the diversity of property throughout the County and that the data on median home prices and value changes is available to the County on a cluster-and regional specific basis, the forecast would generally be more accurate by calculating the average median value changes by cluster (or by region if cluster-level data is insufficient). For example, calculating this amount by building square foot would account for differences in home size and value.
- The value change resulting from applying the median sales price per building square foot (increase or decrease) by cluster or district can be applied to these parcels for a more accurate calculation.
- Calculating the value change in a cluster and regional specific manner would also reveal the vulnerability of assessments to market fluctuations in those areas where a Countywide approach to value change may not show these vulnerabilities.
- 
- Most Recent Market Data Not Utilized:
  - Median home values are estimated using data from January through September.
  - The reason cited for not using October and November data is that the data from the Recorder's Office takes several months to be collected, screened and synthesized for enrollment purposes.
  - However, third party vendors such as MetroScan and DataQuick are capable of reporting out sales prices much sooner and for estimating purposes this type of data would seem to be more reliable than not using any data from this final quarter.
  - This is especially important when assessed values are volatile and the market is unpredictable as it was in 2011 when prices Countywide dropped by approximately 5 percent in the final quarter, and by varying degrees in over 200 of the zip codes in the County according to DataQuick.

***Historical Values Trend***  
***(Note Drop in 2011 Sales in Final Quarter)***



Source: DataQuick

**3. The Forecast Relies on the Judgment of Los Angeles County Assessors Staff Who are Not Primarily Forecasters or Economists**

- The assessment process relies heavily on the judgment of staff, which has translated into the forecast process relying heavily on the judgment of staff.
- In the December forecast, the preliminary value change estimates that are based on an analysis of median sales prices by cluster and region are modified by staff after a review percent changes in median home prices County-wide rather than by city, zip code or region. Staff also reviews value changes for an average price per parcel during the 4-5 month period leading up to the forecast by region (not city or cluster). The value changes are then changed based on the judgment of staff after the review of these two data sources.
- It is RSG's opinion that the forecasts could be modeled in a slightly more sophisticated fashion without creating an overbearing amount of new work. It does not appear to us that staff is performing any projection of where market values may be heading – which is a critical component of the December forecast if data is not more current than the third quarter of the year.

**4. The Los Angeles County Assessor Could Proactively Incorporate Other Economic Indictors and/or Market Reports**

- As the December estimate cannot know January market values with complete certainty, the Los Angeles County Assessor could more proactively incorporate other economic indicators and/or market reports.
- Currently, the Los Angeles County Assessor does review snapshot data provided by the Case-Shiller Index and annual value changes from DataQuick.
- However, in the December estimate, it may also be appropriate to consider macro data on a regional or national level. RSG identified sources that indicated median home



values would remain low, which were available while the December estimate was being prepared, including a CB Richard Ellis Economic Forecast (November 2011) and Marcus and Millichap Investment Outlook (January 2011).

- Data on job production is available in monthly releases by the Bureau of Labor Statistics, and the Conference Board's Leading Economic Index also releases monthly data on the national economy.
- While none of these provides a perfectly-packaged answer on how property values will trend, they do provide useful insight that might be incorporated into decisions made at the staff level to adjust values. It is certainly true that most major economists seem to have different opinions about the extent and pace of the national recovery – given the purpose of the Los Angeles County Assessor's forecast is for budgeting purposes, RSG would observe that it would be prudent to be more conservative (perhaps including a sensitivity analysis and range of estimates) if there is question on economic matters affecting their projections.

#### **5. Properties Remaining At Risk for Potential Value Reductions Not Accounted for Thoroughly**

- Based on RSG's review, one of the greatest missing components in either Los Angeles County Assessor's forecast is a volatility analysis of the properties that remain at risk of potential reductions due to declines in value.
- According to interviews with Los Angeles County Assessor staff, the number of parcels assessed at market value has increased since 2009 as a result of market ("decline-in-value") adjustments and is currently 500,000 parcels.
- The greater the percentage of the roll is represented by these properties, the more susceptible the total roll is to decline as even minor market fluctuations will trigger reassessments.
- The December Forecast would likely be more accurate if it included preliminary sales analysis to gauge these potential impacts rather than ignoring the last three months of the year entirely as it did in 2011, because the roll is always based on the market conditions as of the end of the fourth quarter. It is therefore essential to either project what those values may be or obtain such data.

#### **APRIL (REVISION) FORECAST**

The April forecast incorporates real data including property values as processed by the Los Angeles County Assessor's emulator, as well as appraiser judgment as some parcel appraisals have already been conducted. The April forecast also includes a higher level of analysis due to the emulation process. RSG has identified a few specific methodologies that could be improved upon.

##### **1. Flaws In Calculation of Nearly 25% of the \$13.5 Billion "Current Year Reduction In Value"**

As detailed below, a fairly large portion of the April forecast was developed by an erroneous estimate of the decline in value for many parcels as explained below. When the Los Angeles County Assessor

approaches the April forecast, those parcels potentially subject to Decline-in-Value/Prop 8 reductions fall into five categories the Los Angeles County Assessor uses to organize their analysis.

- Appraiser submitted values. The appraisal process for these parcels is complete, both the roll value and change in roll value from the prior year is known.
- Values enrolled from the Assessor's computerized mass appraisal model, known as the Emulator. These parcels have been evaluated by the Emulator, found to be consistent with the sales ratio analysis and assessment impact analysis, and approved by assessors as having the correct roll value.
- Non-Emulator, not yet submitted. These parcels are currently with appraisers, and do not yet have appraised values for the year.
- Updated – Emulator values not yet approved, assigned. These parcels are also still at the Emulator stage, but staff has achieved what is believed to be reasonable values which must be approved by a supervisor or remitted to the appraisers.
- Emulator – unworked not banded. These parcels are also still at the Emulator stage, where resulting Emulated values are deemed unreliable. Los Angeles County Assessor staff works with the Emulator model to make adjustments that may result in a more accurate value, or may assign these parcels to Los Angeles County Assessor staff. These values are also unknown.

The method by which the "Unworked Not Banded" parcels are estimated appears flawed. The staff-driven analysis resulted in an estimated value reduction of \$110,000 per restoration single family and condominium parcel. However, if this number were calculated correctly pursuant to staff's intention of applying a percentage inflator of the difference between emulator values and appraiser submitted values, this number would have been over \$104,000 per parcel.

Typically staff examines the average difference between values enrolled from the emulator and appraiser submitted values for the prior year to establish value changes for parcels in this category. However, staff believed that this average difference was not a large enough value reduction and instead used this average difference from the prior year. Staff then applied a percentage inflator to this average difference value. The calculation is summarized in the table below.

**Source: Emulator Values Not Approved**

Average Per Parcel Reduction Condo	\$	(64,594)
Average Per Parcel Reduction SFR	\$	(86,330)
Average	\$	(75,462)

**Source: Values Enrolled from Emulator**

Average Per Parcel SFR Reduction	\$	(39,500)
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**Source: Appraiser Submitted Values**

Average Per Parcel SFR Reduction	\$	(73,707)
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**Impact: Unworked Not Banded**

Per Parcel Reduction Base	\$	(75,462)
Increased by 45%, Rounded Up	\$	(110,000)

Appraiser reduction is an increase of 87% over the Emulated reduction. Analysis instead considered a percent change of 45%, or the difference in how the Emulator reduced values compared to the appraisers.



RSG is not suggesting the per parcel reduction base of about \$75,000 be increased by 87 percent (resulting in an average reduction in value of over \$104,000 per parcel), but wishes to point out that a better methodology is necessary. Intuitively, it does not make sense that residential parcels subject to a reduction in this category should have their assessment decreased by such a significant amount. Los Angeles County Assessor's staff acknowledged that this reduction may have been overstated as they were wrapping up their forecast amidst their core duties of compiling the roll.

The use of appraiser judgment as compared to Emulator values may benefit from further sophistication in the forecast process. This would ideally begin with a more thorough analysis of appraiser judgment over the last three to four years during poor market conditions. RSG believes a better correlation could be made between Emulator values and appraiser judgment by district, potentially by region, which would allow for an improved forecast.

## **2. Inconsistencies In Calculating Value Changes For Different Types Of Parcels**

The forecast methodology applied to one half of the proactive parcels within a large group (78,000 parcels) of properties that could not put through the Emulator was different than what was applied to the restoration parcels. The former looks primarily at appraiser judgment from the prior year, while the latter incorporates Emulator values and appraiser judgment from the current year.

## **3. Average Increases And Decreases In Value Were Applied County-Wide Rather Than On A More Geographical-Specific Manner That Would Result In Greater Accuracy (Same Comment As #3 Under December Forecast) For Estimation Purposes On Properties Not Yet Appraised**

- These estimates were based upon appraiser judgment (see # 1 above).
- Given the diversity of property throughout the County and that the data on median home prices and value changes is available to the County on a cluster-and regional specific basis, the forecast would generally be more accurate by calculating the average median value changes by cluster (or by region if cluster-level data is insufficient). Calculating this amount by building square foot would account for differences in home size and value.
- The value change resulting from applying the average median sales price per building square foot (increase or decrease) by cluster or region can be applied to the specific Restoration and Proactive parcels for a more accurate calculation.
- This alternative methodology yielded more accurate results when tested on a pool of recently appraised properties (approximately 18,000). Using the currently methodology employed by the Los Angeles Assessor's Office, the margin or error when comparing the actual appraised values to those that result from utilizing their methodology was 7.4%. However, by applying the alternative methodology recommended, the margin of error was less than 1.4%.

## RECOMMENDATIONS

Based on these observations and analysis, RSG recommends that the Los Angeles County Assessor's office refine the methodology and process of preparing the forecasts as follows:

- 1) The December forecast should be modified to include more current market information, demonstrate the sensitivity of the forecast to unknown market fluctuations prior to the lien date, and be presented as a range if volatility of the roll remains high as it is today (where one in five parcels are assessed at or near current market value). Great effort should be made to clearly communicate the risks associated with the forecasts and the potential outcomes of varying market and economic conditions as much as possible.
- 2) The April and December Forecasts should be prepared with a more refined analysis at the local and land use level for greater accuracy so as to more closely mirror the actual results of the appraisal and enrollment process and the final roll. Given that the function of Los Angeles County Assessor's Office staff is assessing property, additional financial and economic assistance and expertise could be employed to assist with these efforts.
- 3) Additional effort should be made this calendar year to ensure that future forecasts are modified with the new methodology described herein, given the uncertainty that remains in the local and regional real estate market, as it is possible that without changes to the approach employed that significant deviations in the results between forecasts are possible.

Additionally, RSG is recommending modifications to the forecast process and methodology based on these findings to address potential vulnerabilities and improve the accuracy of the forecast in the future. We are prepared to work with the Los Angeles County Assessor and Chief Executive Office on these modifications as they are going to involve incorporation of more sophisticated modeling and forecasting techniques than what the Assessor has normally prepared but are necessary in light of the fragility of the overall County budget.



## LA COUNTY ASSESSOR'S OFFICE DECEMBER 2011 AND APRIL 2012 FORECAST METHODOLOGY AND PROCESS

### December 15, 2011 Forecast

Step 1 (September) – **Surveys** - Assessor's Office staff sends an informational survey to directors, chiefs and 3 principal appraisers to obtain data on a regional level.

Step 2 (November) – **Sales Ratio Analysis/Assessment Impact Study** - Assessor's Office staff run a preliminary statistical study, by cluster, to track market changes in value. The data utilized in the study covers the time period of January 1 through September 30.

Step 3 (November) – **DIV Information** – A data request is given to Assessor's Office staff to provide projections of reductions, or declines in value ("DIV") for "Restoration" parcels (i.e., parcels that had a decline in value in the prior year) based on the preliminary Assessment Impact Study (Step 2) and provides the projections. These projections are referred to as the "Restoration Forecast." The projections provide the "value impact" or the amount of increase, decrease or restoration adjustment for all land use types for all Restoration parcels by examining value changes.

There were approximately 375,000 Restoration parcels from fiscal year 2011-12. Per Assessor's Office staff, the value impact or change was calculated by examining the median sales prices by cluster for January and September. More specifically, the percentage change by cluster and region is applied to the current enrolled declined value. Where no median sale price data was available for the cluster, there was no change considered. If the value change was between +/- 5% it was flagged as "No Change." However, if the reduction greater than 5% in a cluster, it was classified as "Reduction." If there was an increase in a cluster of between 5 and 25%, it was counted as either an "Increase" or a "Restoration." The Restoration value change in the Restoration Forecast showed an initial \$1.7 billion dollar drop in value.

Assessor's Office staff calculates the average value increase per parcel by dividing the total value increase to the total number of parcels with a value increase. Assessor's Office staff also calculates the average decrease in value per parcel by dividing the total value reduction by the total number of parcels that experienced a value reduction over this time period.

Step 4 (November) – **Assessed Value Increase/Decrease Analysis** – Assessor's Office staff starts by reviewing the Restoration Forecast (Step 3) as a starting point. It appears that Assessor's Office staff applies the percentage of parcels that experienced a reduction, increase or restoration (i.e., no change) in value as determined in Assessor's Office staff's Restoration Forecast for this analysis, particularly for Single Family Residential and Condominium land uses, for the purposes of projecting the total number of Restoration parcels that will experience a reduction, increase or restoration in value in fiscal year 2012-13. The total number of Commercial/Industrial properties with projected reductions was higher in this analysis than in Assessor's Office staff's analysis from Step 3. Assessor's Office staff also reviews the average reduction, increase and restoration value change per parcel by land use and modifies this

## Appendix A

number by analyzing the following information to determine the final average increase, decrease and restoration per parcel amount:

- Data quick median home sales prices for the County as a whole between September and September (i.e., the median home sales prices between September 2010 and September 2011 were analyzed for the December 15 forecast);
- "SE" report by land use type and region that shows value changes between July 1 and early November; and
- 2011 Assessment Roll closure (July 1 through June 30).

The final average value changes per parcel are applied in the percentages of parcels that experienced a value change provided in Assessor's Office staff's analysis from Step 3. These percentages generally align but differ mostly in the Commercial/Industrial land use category. She then applies this average value change to the appropriate percentage of the Restoration parcels that are projected to experience a change. This is how the \$2.6 billion "Current Year Decline in Value" figure in the December 15, 2011 was calculated.

### April 4, 2012 Forecast

Step 1 – Sales Price Ratio Analysis/Assessment Impact Study – Assessor's Office staff run the Sales Price Ratio Analysis/Assessment Impact Study to include all activity through the January 1 lien date. Scenarios are run with Los Angeles County Assessor's Office management (i.e., Assessor's Office staff and the District Appraisal Directors). The pool of subject properties to be analyzed for the forecast is determined through the results of this analysis. More specifically, Proactive parcels, or those parcels that did not experience a prior year decline in value but are at risk for value reductions in the next fiscal year, are flagged as part of this. There were approximately 120,000 parcels identified as "Proactive" parcels. It is important to note that in the analysis that was completed for the fiscal year 2011-12 forecasts, only 30,000 parcels were identified as Proactive. Therefore, the total number of Proactive parcels seems to have increased by 300% in one year's time.

Step 2 – Emulation – Los Angeles County Assessor's office staff runs the pool the pool of subject properties (i.e., Restoration and Proactive parcels) through the Emulation model, a computer-aided mass appraisal application that looks at the best comps, makes adjustments based on property characteristics and makes an appraisal of property. It is important to note that supervisor appraisers and appraisers meet several times each year to determine all characteristics and data that go into the emulator (by sub-market). Assessor's Office staff's group reviews the emulation results and compares them to the sales ratio analysis/assessment impact study (Step 2 above) to see where values are aligned. Those values that are statistically validated (i.e., the emulated value matches or aligns with the Sales Ratio-Derived Value (or benchmark value)) and are prepared for enrollment.

The emulation process involved running 460,000 of the 495,000 Restoration and Proactive parcels through emulation. Of these, 150,000 parcels had values that closely matched the Sales Ratio-Derived Value, or had values enrolled from the emulator. ***The results of the emulated parcels are submitted to Assessor's Office staff as "Values Enrolled from Emulator" (see table on the page 4).***



## Appendix A

**Step 3 - Emulation Review** - The remaining 310,000 parcels (less those sent to appraisers) were put through "Emulation Review," or a process where a supervisor appraiser puts the parcels through the emulator again and re-runs the emulation multiple times with modifications. Values are calculated based on the expertise/judgment of the supervisor appraiser. This process occurs from mid-March through early May. As of April 26, 2012, 230,000 of the 310,000 parcels had been run through this process. The results from this review are submitted to Assessor's Office staff as follows:

### *Emulator Values Not Yet Approved or Assigned*

Parcels were put through emulation and the emulated value did not align with the Sales Ratio-Derived Value, but the parcels were not flagged to send to appraisers. These parcels are still in the Emulator and are awaiting review. However, at the time of the April and May forecasts, not all values have completed Emulation review. Therefore, Los Angeles County Assessor's office staff applies "predictives" or refinements based on past appraiser/emulator interface and appraiser judgment to the emulated value of the parcels. For example, if last year the emulator indicated a decline of 25%, this decline is compared to the 10-15% decline that the appraiser determined and inputted.

**Step 4 - Appraiser Review** - Occurs concurrently with Emulation Review and results in the following component of the April Forecast:

### *Appraiser-Submitted Values*

The leftover remaining parcels that were not put through emulation that were sent directly to appraisers (i.e., properties identified as properties that are difficult to appraise and others that could not be run through emulation). As of the April forecast, 27,000 parcels were in this category.

**Step 5 - Forecasts for Values Not Yet Submitted** - Due to the fact that a significant number of appraisals are still in process and not complete at the time of the April forecast (approximately 100,000 by the April 2012 Forecast), Los Angeles County Assessor's office staff forecasts or estimates the value changes resulting from these future appraisals in the following categories:

### *Non-Emulator Not Yet Submitted*

These are "leftover" parcels, or the 35,000 parcels not put through emulation (22,700 parcels had been appraised by the timing of the April forecast). The appraisals have not been completed for these properties and the values are estimated by using previous appraiser submitted data.

### *Emulator - Unworked Not Banded*

These parcels were put through emulation but emulated values were flagged as having "bad" or inaccurate values that need to be re-estimated. The values are determined as an average increase or decrease per parcel by looking at the average difference between the market value and the uncorrected prior year roll value (calculated as an average value difference by parcel). This number was adjusted by the percentage difference between values assigned through emulation and values assigned by appraisers (i.e., appraiser judgment). There were 78,000 out of the approximately 494,000 total Restoration and Proactive parcels that were not put through the Emulator that are referred to as "Emulator - Unworked Not Banded." Approximately 53,000 are Restoration and 24,000 are Proactive parcels. The value changes for these condominium and single family residential parcels are estimated by Assessor's Office staff. Based on actual appraiser judgment during the current year, it was assumed

## Appendix A

50% of these Proactive parcels would experience a \$30,000/parcel decline in value, and the remaining 50% would experience no change. With regard to the Restoration parcels, it was assumed that 36% would experience an increase in value of approximately \$45,000/parcel, 62% would experience a decline in value of \$110,000/parcel, and 1% would have no change in value.

The table below was taken from the spreadsheet with the April 2012 forecast calculations, with the “% of total” columns added for additional analysis:

	Parcel Count	Net Value Change	% of total	
			# parcels	value change
Non-Emulator Not Yet Submitted	27,141	-\$1,746,978,415	5.49%	12.96%
Appraiser Submitted Values	22,708	-\$664,471,339	4.60%	4.93%
Values Enrolled from Emulator	151,558	-\$4,203,239,118	30.67%	31.19%
Updated - Emulator Values Not Yet Approved, Assigned	214,824	-\$3,627,260,073	43.47%	26.91%
Emulator - Unworked Not Banded	77,954	-\$3,235,186,339	15.77%	24.01%
	494,185	-\$13,477,135,284	100.00%	100.00%

As shown above, those values either put through the emulator and approved, or actually prepared by the Los Angeles County Assessor's office appraisers represent approximately 79% of the total Restoration and Proactive parcels and represent 63% of the \$13.5 billion decline in current year value. The remainder of the parcels, which fall into the “Non-Emulator Not Yet Submitted” and Emulator-Unworked Not Banded” categories shown above, (21% of the total parcels) and decline in value (37% of the total decline in value) was derived from forecasts by Los Angeles County Assessor's Office staff completed by applying an average decline in value/parcel for a certain percentage of the Restoration and Proactive parcels that are assumed to experience value reductions, increases and no change in the next fiscal year.